## 1.5 Terminology

A problem that can hamper meaningful debate between designers is consistency of terminology. The following annotated photographs set down the terminology used throughout these guidelines and should be understood by all involved in the bridge design process. (Definitions sourced from RTA Structural Drafting Manual and the RTA Road Design Guide).

**Superstructure** – that part of the structure which supports traffic and includes deck, slab and girders.

**Transition pier** – pier separating different superstructure types.

**Soffit** – undersurface of the bridge superstructure.

**Substructure** – that part of the structure, ie piers and abutments, which supports the superstructure and which transfers the structural load to the foundations.

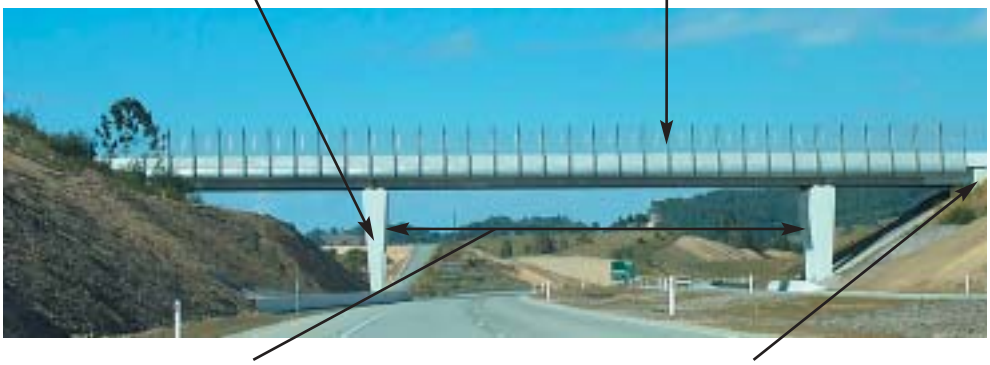
**Pile cap** – A reinforced concrete mass cast around the head of a group of piles to ensure they act together and distribute the load among them.

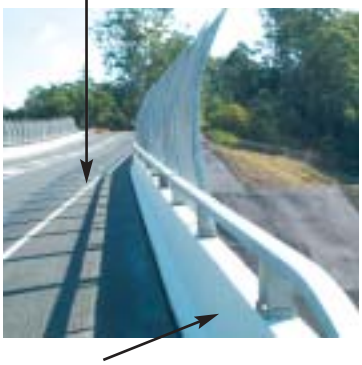
**Pile** – a slender member driven into or formed in the ground to resist loads.

**Pier** – a part of the substructure which supports the superstructure at the end of the span and which transfers loads on the superstructure to the foundations.

**Safety / throw screen** – protective fence to deter the launching of objects from the bridge onto the highway below.

**Deck** – bridge floor directly carrying traffic loads.





**Span** – the distance between points of support (eg piers, abutment).

**Abutment** – the part of the structure which supports the superstructure at its extremities and retains earthworks.

**Spill through abutment** – an abutment which allows fill to form a slope into the end span rather than retaining it with a face wall.

**Traffic barrier**

Parapet – low protective concrete wall at edge of bridge deck.

Railing – on top of parapet to restrict lateral movement of traffic.

# Introduction

**Plank bridges** – bridges which utilise a simple concrete plank and cross support construction system.

**Planks** – structural units.

**Haunching** – increase in the depth of a continuous beam at the point of support to withstand the increased moment of bending on the beam.

**Parapet** – (outer face).

**Bearing** – a component which supports part of the bridge and which transmits forces from that part to another part of the structure whilst permitting angular and/or linear movement between parts.

**Safety Screen.**

**Pedestrian barrier** – a railing placed on edges of bridge structure for pedestrian safety.

**Pier Cap / Headstock** – a component which transfers loads from the superstructure to the piers.

**Beam / Girder** – load bearing member which supports the deck.